A dipterous leaf-miner on Cineraria, new to Science

By Everard E. Blanchard

AGROMYZA HUIDOBRENSIS, sp. n.

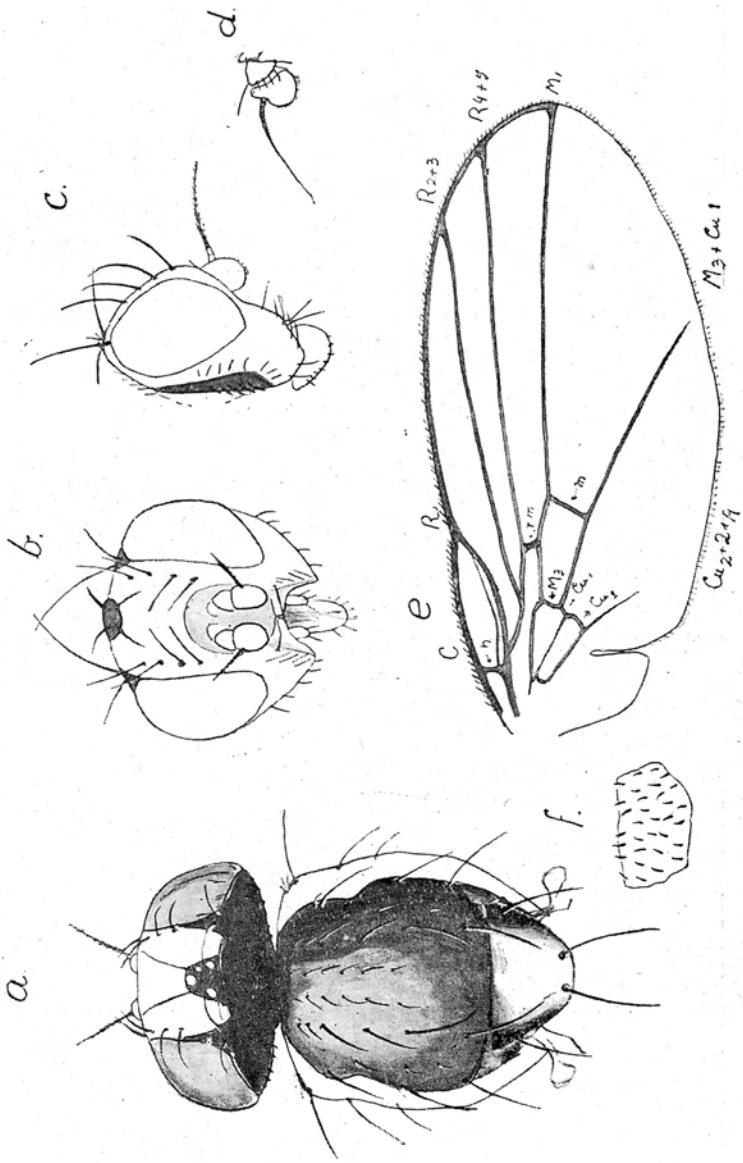
Female. — Glossy black with yellow markings. Occiput, ocellar triangle, vertical orbits glossy black; front, cheeks, proboscis and palpi yellow; antennal segments I, II and III yellowish with blackish arista. Dorsum of mesonotum black, scutellum lemon-yellow with a black spot on either side; pleurae yellow with exception of the sternopleura and the lower half of mesopleura which are blackish; humerus, propleura, pteropleura and hypopleura with black spots; halteres lemon yellow; wings hyaline with dark brown veins; legs black, femora and coxa mottled witih yellowish; Abdomen black with a longitudonal yellowish stripe running down either side; distal margins of dorsal segments I - V narrowly bordered with yellowish, being widest on V.

Head slightly retracted below, when viewed in profile, orbits not clearly differentiated from central stripe; orbital bristles four in number, long and rather slender; vertical bristles two; ocellar, four; mesonotum with four pairs of dorso-centrals, the who posterior pairs being much longer and stronger; thoracic setulae in longitudonal rows, at least six pairs between dorso-central bristles; scutellum with four marginal setae. Body thickly clothed in minute curved bristles (6 - 8 microns) that agree in color with that of the tegument from which they arise. Abdominal tegument rather thickly beset with black setae of variable length; those on the distal margin of segments being longest (0.15 - 0.2 mm.) while those on the median shortest (< 0.1 mm.). Costa reaches apex of M., the latter ending in the apex of wing; radio-medial cross-vein slightly before apex of R_1 and slightly beyond middle of discal cell (altho in some specimens it is located at middle); medial cross-vein rather long (0.13 - 0.15 mm.) from 2 ½ to 3 times length of radio-medial (0.05 mm.); last section of $M_3 + Cu$., from slightly less than twice to 2 ¼ times length of first section.

Close to *Agromyza pusilla*, Meigen, from which it may be easily separated by the lateral yellow apots on scutellum and the greater relative length of the medial cross-vein.

Host: The larvae mine in the leaves of cultivated *Cineraria*.

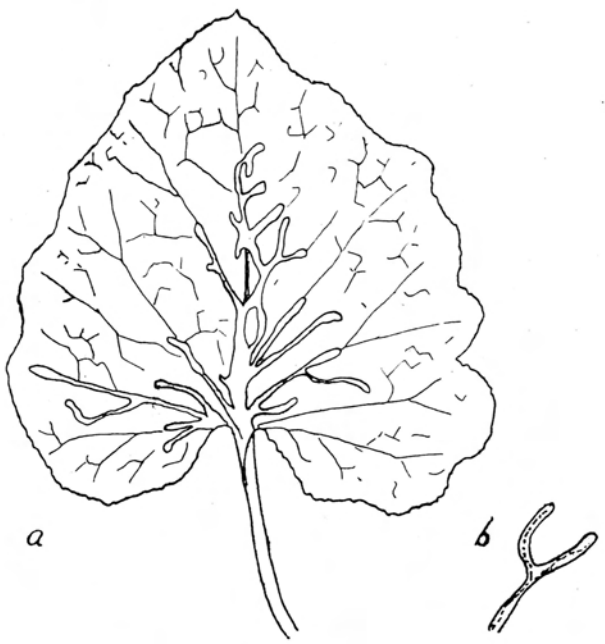
Biology: The females deposit small white oval eggs in the tissue of the leaf from the underside. In from four to nine days these hatch and the young larvae commence at once to feed and mine the leaves. When full grown the larva is very similar to *Agromyza pusilla* (Jour. Agr. Research I pp. 59 - 87, 1913) that is to say yellowish and translucent. The mines (fig. 2) are narrow and tortuous, their general direction being largely influenced by the larger leaf-veins. Along the center of the mines may be seen a dotted line of larval excrement, when the leaf is held against light. Temperature influences to a great degree the time required to reach the pupal stage, varying between



Agromyza huidobrensis, sp. n.: a, head and thorax; bb head, frontal aspect; c, head, viewed from side; d, antenna; e, wing; f, bit of tegument showing vestiture.

10 to 25 days. When fully developed, the larvae abandon the mine and transform to brownish pupae (2 mm.) which they attach to the underside of he leaf, differing in his respect from *pusilla* Meigen whose larvae pupate within the mines. The pupal stage lasts from nine days in warm weather to 15 days in cool spring temperature. Breeding is continuous throughout the growing period and there are probably at least five generations a year in the latiude of Buenos Aires.

The material bred by the author was collected and kindly submitted to him for study by Sr. Germán Ruiz Huidobro, to whom the species is respectfully dedicated.



a, leaf of *Cineraria* sp. attacked by leaf-miner; b, mine showing dotted line of excrement.

RESUMEN

Las hojas de Cineraria cultivada se encuentran atacadas a veces por gusanitos amarillentos traslucentes que se alimentan del interior de la hoja, formando galerías angostas que siguen la dirección general de la nervadura principal de la hoja. El adulto es una mosca negra lustrosa con manchas amarillentas pronunciadas que pertenece a una nueva especie *Agromyza huidobrensis*, Blanchard descrita en esta comunicación. La larva completa su desarrollo en 10 a 25 días y se transforma en pupa sobre la cara inferior de la hoja. Permanece en este estado por 9 - 15 días. La hembra adulta deposita los huevitos blanquecinos ovalados en los tejidos de la hoja por la cara inferior. Estos eclosionan a los 4 - 9 días.